


```

OY 72 L-KEEVVHMPDRTEENELFDLALNVPGLSTWOSVTKLNDFEVEIRGTLMKMCESFIY 130
Db 73 FYTLKTYVPPQREDEKVSFSLGNHVFENDSFQIRVITKTKIKKDSAMLLSGSHLLH 132
OY 131 NOTLMLKLOETNYVYMLIDPVIKCGDLMAELLAVPVLTLTISVGNMNSCGKLPAPLS 190
Db 133 NKEIMASLASSSFDVYMLIDPFLPCSPVIAQVLSLPIVFFLH-ALPCLSEFATOCPPMFS 191
OY 191 YVVPMTGLDRMTFELRKNMSLSVLFHWIODYDHEWEEFYSKALGPTTLCETVGR 250
Db 192 YVPRPSSSDHMTFLQRYKNNMLAFSQN-ICDVYSPATLASERLQREVVYVODLISS 250
OY 251 AEIWLIRTWDEFPOPIQNEFEVGLHCKPAKALPKEMENFVOSGEGIVYVESLGL 310
Db 251 ASWMLRSDPVADYPRIPNNVFFVGINCLHONPLISOFEAYINASGEHIVFSLGSM 310
OY 311 FQNTVEKANIISALAOIPKVLRYKKGKRPSTLCANTRLYDWIPONDILGHPKRAF 370
Db 311 VSEIEKKAMAIADALGNKQPVLMRYTGTSPNSLANNILVKKMLPONDILGHPMTRAF 370
OY 371 THGKNGIYEALYHGVPMVGPVIFGDOLDNTAHKAKGAVEINFKMTSSEDLALAKRY 430
Db 371 THAGSHGYESTICNGVPMVMPLEFGDOMNAKRMETKAGVTLNVLMTSEDLNALKAV 430
OY 431 ITDSYKKNAMRLSRHHDQVKKPLDRAVFWEIEFMRHKGAKHLBSAANDLTWFOHSID 490
Db 431 INDSYKKNAMRLSRHHDQVKKPLDRAVFWEIEFMRHKGAKHLBSAANDLTWFOHSID 490
OY 491 VIGFLTCVATAIPLFTKCFJSCOK-FNKTRKIEK 525
Db 491 VIGFLTCVATAIPLFTKCFJSCOK-FNKTRKIEK 525

```

RESULT 2

PCT-US92-00282-6

Sequence 6, Application PC/TUS9200282

GENERAL INFORMATION:

APPLICANT: OWENS, IDA S.

APPLICANT: RITTER, JOSEPH K.

TITLE OF INVENTION: THE GENETIC LOCUS UGT1 AND A MUTATION

NUMBER OF SEQUENCES: 40

CORRESPONDENCE ADDRESSES:

ADDRESSEE: CUSHMAN DARBY & CUSHMAN

STREET: 1615 L STREET, N.W.

CITY: WASHINGTON

STATE: D.C.

COUNTRY: U.S.A.

ZIP: 20036-5601

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patent in Release #1.0, Version #1.25

CURRENT APPLICATION DATA:

APPLICATION NUMBER: PCT/US92/00282

FILING DATE: 19920110

CLASSIFICATION: 435

ATTORNEY/AGENT INFORMATION:

NAME: SCOTT, WATSON T.

REGISTRATION NUMBER: 26581

TELECOMMUNICATION INFORMATION:

TELEPHONE: 202-861-3000

TELEFAX: 202-822-0944

TELEX: 6714627 CUSH

INFORMATION FOR SEQ ID NO: 6:

SEQUENCE CHARACTERISTICS:

LENGTH: 531 amino acids

TYPE: AMINO ACID

STRANDEDNESS: single

TOPOLOGY: linear

MOLECULE TYPE: protein

PCT-US92-00282-6

Query Match 40.3%; Score 1128.5; DB 5; Length 531;
Best Local Similarity 44.3%; Pred. No. 1e-113;
Matches 234; Conservative 91; Mismatch 174; Indels 29; Gaps 9;

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OY 11 LLLQPCVGGFGKGYLVMPGCDMSHMLNVKILEELVRGHEVYVTHSKPSLIDRK-P 69
Db 13 LLLLLALPAEAGKGVLPVPMESGSHMSMDRVYRELHANGQAVLA---PEVTHMKGE 69
OY 70 SALKEVVMHMPDRTE-ENEIYFDLALNVPG-----LSTWOSVTKLNDFEVEIRGTLM 122
Db 70 DEFTLQTVAFPYTKKEVQREILLGNNAKKGEPQHFVKTFFETMASIKKFFDLYAN----- 123
OY 123 MNCESFIYNOTLMLKLOETNYVYMLIDPVIKCGDLMAELLAVPVLTLTISVGNMNSCG 182
Db 124 -SCALLLNKKTILQDINSSFDVYMLIDPFLPCSPVIAQVLSLPIVFFLH-ALPCLSEF 181
OY 183 GKLPAPLSVYVPMGTGLDRMTFELRKNMSM---LSVLFHWIODYDHEWEEFYSKAL 238
Db 182 TQCPKPSYIIPNLTLMSDHTFLQRYKNNMLYPLTKICHLSITPY-----ESLASL 236
OY 239 GRPTTLCETVGAETWILIRTWDEFPOPIQNEFEVGLHCKPAKALPKEMENFVOSG 298
Db 237 QREMSLVEVLSHSAVWLFKGDVFDYPRIPNNVFFVGINCLHONPLISOFEAYINASGE 296
OY 299 EDGIVFSLGSLQNTVEKANIISALAOIPKVLRYKKGKRPSTLCANTRLYDWIPON 358
Db 297 EHGIVFSLGSLQNTVEKANIISALAOIPKVLRYKKGKRPSTLCANTRLYDWIPON 356
OY 359 DLIGHPTKAFITHGKNGIYEALYHGVPMVGPVIFGDOLDNTAHKAKGAVEINFKMT 418
Db 357 DLIGHPTKAFITHGKNGIYEALYHGVPMVGPVIFGDOLDNTAHKAKGAVEINFKMT 416
OY 419 TSEDRLALRTVYTDSSYKKNAMRLSRHHDQVKKPLDRAVFWEIEFMRHKGAKHLBSA 478
Db 417 TADDELENALAKTYINNSYKKNAMRLSRHHDQVKKPLDRAVFWEIEFMRHKGAKHLBSA 476
OY 479 HDLTFOHSDIVIGFELTCVATAIPLFTKCFJSCOK-FNKTRKIEK 525
Db 477 HDLTFOHSDIVIGFELTCVATAIPLFTKCFJSCOK-FNKTRKIEK 524

```

RESULT 3

PCT-US92-00282-5

Sequence 5, Application PC/TUS9200282

GENERAL INFORMATION:

APPLICANT: OWENS, IDA S.

APPLICANT: RITTER, JOSEPH K.

TITLE OF INVENTION: THE GENETIC LOCUS UGT1 AND A MUTATION

NUMBER OF SEQUENCES: 40

CORRESPONDENCE ADDRESSES:

ADDRESSEE: CUSHMAN DARBY & CUSHMAN

STREET: 1615 L STREET, N.W.

CITY: WASHINGTON

STATE: D.C.

COUNTRY: U.S.A.

ZIP: 20036-5601

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patent in Release #1.0, Version #1.25

CURRENT APPLICATION DATA:

APPLICATION NUMBER: PCT/US92/00282

FILING DATE: 19920110

CLASSIFICATION: 435

ATTORNEY/AGENT INFORMATION:

NAME: SCOTT, WATSON T.

REGISTRATION NUMBER: 26581

REFERENCE/DOCKET NUMBER: 91532-PCT
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-861-3000
TELEFAX: 202-822-0944
TELEX: 6714627 CUSH
INFORMATION FOR SEQ ID NO: 5:
SEQUENCE CHARACTERISTICS:
LENGTH: 531 amino acids
TYPE: AMINO ACID
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
PCT-US92-00282-5

Query Match 38.4%; Score 1077; DB 5; Length 531;
Best Local Similarity 42.6%; Pred. No. 4e-108;
Matches 227; Conservative 91; Mismatches 181; Indels 34; Gaps 9;

QY 6 SALVFLLLQFCVCGCGKVLVPCDMSHMLNVKYLEELIVRGHEVTLTHSKPSLID 65
DB 13 AGVEFLALMGVNG---DKLLVPQDSHMLSMKMDIVEYLSDRGHELVVVVPEVNNLLK 68
QY 66 YRKSALKEEVVHMPDRT-----ENEIFVDLALNVLPGISTWQSVIKLNDFEVEI 117
DB 69 EYKYYTRK--IYPPYDOEELKNKYOSGNNHFAERSFLTAPQTEYRNMMIVIGITFIN- 125
QY 118 RGLTKMCESEFIYQTLKKLOETNYDVLIDPVLPCGDLMAELLAVPVLTLRISVGN 177
DB 126 -----CQSLQDRDITNFKESKFDALFTDPLPCGVIIAEYGLPSYLFGR-GPCFS 177
QY 178 MERSCGKIPAPLVVPVMTGLTDRMTFLERKNSMLSV---LHFNIQDYDHFWEF 233
DB 178 LEHFSRSPDVSIVIPRCYTKFSDMTFESQVAVNLVLEPYLFYCFESK-----EKL 232
QY 234 YSKALGRFTICENVKAEILIRTYMDFEFPQRPQRFEEVGGHCKPAKAPKEMENF 293
DB 233 ASAYLKRVDIT--TLSEVSVMILRDVLEYPRVPMNMFVIGGCKRRKDLSEFEAY 291
QY 294 VOSSGEDIYVESLGSIFONTTEKANTIASALAIPOKVLMRKGGKSTLGANTRLVD 353
DB 292 INASEHGIYVESLGSVMSEIPEKKAMAIADALGKNPOTVLMRYGTGRSNLANITILVK 351
QY 354 WIPQDILGHPTKAFITTHGNGGIYEAIYHGVPMVGPVIFGQDLDNTHMKAKGAVEI 413
DB 352 WLPQNDLGHMTAFITTHAGSHGYESICNGVPMVMPLEFGDQDNKRMETKAGVTL 411
QY 414 NFKTMSDDLRLALFTVITDSSYKENAMRLSRHHQPVKPLDRAVFWIEFVNRHKAH 473
DB 412 NVLEMTSEDLERALKAVINDSKYENIMRLSLHKDRPEPLDLAVFWIEFVNRHKAH 471
QY 474 LRSAAHDLTWQHSIDYIGFLITCVATAIFLFTKCFLESCOK-FNKTRKIK 525
DB 472 LRPAAHDLTWQHSIDYIGFLAVLVTAFTFKCCPYGPKCLGKKGRVK 524

RESULT 4
PCT-US92-00282-4
Sequence 4, Application PC/TUS9200282
GENERAL INFORMATION:
APPLICANT: OMENS, IDA S.
APPLICANT: BITTER, JOSEPH K.
TITLE OF INVENTION: THE GENETIC LOCUS UGT1 AND A MUTATION
THEREIN.
NUMBER OF SEQUENCES: 40
CORRESPONDENCE ADDRESS:
ADDRESSEE: CUSHMAN DARBY & CUSHMAN
STREET: 1615 L STREET, N.W.
CITY: WASHINGTON
STATE: D.C.
COUNTRY: U.S.A.
ZIP: 20036-5601
COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US92/00282
FILING DATE: 19920110
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: SCOTT, MATSON T.
REGISTRATION NUMBER: 26581
REFERENCE/DOCKET NUMBER: 91532-PCT
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-861-3000
TELEFAX: 202-822-0944
TELEX: 6714627 CUSH
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 534 amino acids
TYPE: AMINO ACID
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
PCT-US92-00282-4

Query Match 38.4%; Score 1076.5; DB 5; Length 534;
Best Local Similarity 42.6%; Pred. No. 4.6e-108;
Matches 231; Conservative 83; Mismatches 171; Indels 57; Gaps 8;

QY 11 LLLQFCVCGCGKVLVPCDMSHMLNVKYLEELIVRGHEVTLTHSKPSLID 61
DB 16 LLLLSVPMASGKVLVPPIDGSPWLSMREALRLHGRHQAVALTEPVNNHIEEKFE 75
QY 62 SLIDRKPSALK-----FEVYHMPDRTENEIFVDLALNVLPGISTWQSVI 108
DB 76 TLTAAYAVMTQKEPDRVTLGTQGFTEHLLKRYSRSMIAINNVSL----- 122
QY 109 KINDFVEIRGLTKMCESEFIYQTLKKLOETNYDVLIDPVLPCGDLMAELLAVPVL 168
DB 123 -----ALHRCVCELLHNEALIRHLNATSEVDVLTDPVNLGAVLAKYLSIPAF 171
QY 169 TLIRISVGNMERSCKKLAPLVSVVPMGTDRMTFLERKNSM-----LSVLFHFWD 224
DB 172 FWRY-IPDLDKRGTCQCPSPSYIPKLLTNSDHMTFLQKVNMLXPLALSTICHTFSAP 230
QY 225 YDHFWEFEYSKALGRPTTICETVGAELIIRTYMDFEFPQRPQRFEEVGGHCKPAK 284
DB 231 Y-----ASLASLFGREVSVDVLSYASVMLFRGDFVMDYPRIPMNVFIGINCANGK 285
QY 285 ALPKEMENFVOSSGEDIYVESLGSIFONTTEKANTIASALAIPOKVLMRKGGKST 344
DB 286 PLSGFEFAINNSGHEGIVFSLGSVMSEIPEKKAMAIADALGKIPQVLMRYGTGRSN 345
QY 345 LCATNRLDWTQNDLGHPTKAFITTHGNGGIYEAIYHGVPMVGPVIFGQDLDNTHMKAK 404
DB 346 LANNITLVKWLQNDLGHPTKAFITTHAGSHGYESICNGVPMVMPLEFGDQDNKRMET 405
QY 405 KAKGAVEINFTKMSDDLRLALFTVITDSSYKENAMRLSRHHQPVKPLDRAVFWIEF 464
DB 406 ETKGAGVTLNVLEMTSEDLERALKAVINDSKYENIMRLSLHKDRPEPLDLAVFWIEF 465
QY 465 VNRHKAHLSAAHDLTWQHSIDYIGFLITCVATAIFLFTKCFLESCOK-FNKTRK 523
DB 466 VNRHKAHLSAAHDLTWQHSIDYIGFLAVLVTAFTFKCCAYGRCCLGKKGRV 525
QY 524 EK 525
DB 526 KK 527

RESULT 5
PCT-US92-00282-7

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? Sequence 7, Application PC/TUS9200282
? GENERAL INFORMATION:
? APPLICANT: OWENS, IDA S.
? APPLICANT: RITTER, JOSEPH K.
? TITLE OF INVENTION: THE GENETIC LOCUS UGT1 AND A MUTATION
? TITLE OF INVENTION: THEREIN.
? NUMBER OF SEQUENCES: 40
? CORRESPONDENCE ADDRESS:
? ADDRESSEE: CUSHMAN DARBY & CUSHMAN
? STREET: 1615 L STREET, N.W.
? CITY: WASHINGTON
? STATE: D.C.
? COUNTRY: U.S.A.
? ZIP: 20036-5601
? COMPUTER READABLE FORM:
? MEDIUM TYPE: Floppy disk
? COMPUTER: IBM PC compatible
? OPERATING SYSTEM: PC-DOS/MS-DOS
? SOFTWARE: Patentin Release #1.0, Version #1.25
? CURRENT APPLICATION DATA:
? APPLICATION NUMBER: PCT/US92/00282
? FILING DATE: 19920110
? CLASSIFICATION: 435
? ATTORNEY/AGENT INFORMATION:
? NAME: SCOTT, WATSON T.
? REGISTRATION NUMBER: 26581
? REFERENCE/DOCKET NUMBER: 91532-PCT
? TELECOMMUNICATION INFORMATION:
? TELEPHONE: 202-861-3000
? TELEFAX: 202-822-0944
? TELEX: 6714627 CUSH
? INFORMATION FOR SEQ ID NO: 7:
? SEQUENCE CHARACTERISTICS:
? LENGTH: 529 amino acids
? TYPE: AMINO ACID
? STRANDEDNESS: single
? TOPOLOGY: linear
? MOLECULE TYPE: protein
? PCT-US92-00282-7
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Query Match 37.6%; Score 1052.5; DB 5; Length 529;
Best Local Similarity 42.8%; Pred. No. 1.8e-105;
Matches 227; Conservative 95; Mismatches 173; Indels .35; Gaps 11;

QY 10 FLILQFCVCGCGFVYVPCDMSHMLNVKYLEELIVRGHEVTVLTHSKPSLID-----65
DB 14 FLFLVLM--GSVYGLDKLVVPDQSHWLSMKELVEHLSERGHDIIVLVPEVNLGLESKY 71
QY 66 YRKPSALKEFVYHMPD-----RTENEIFVDLALNVLPGLSTWOSVYKLNDFVEIRGT 120
DB 72 YRKKS---FPVPINLEELTRYRSFGNNHFAASSPLMAPLREYRNMYIDMCF-----122
QY 121 LKMGESFYINOTLMKLOETNYDVALIDVPIPCGDLMAELLAVPVLRLRISVGNMR 180
DB 123 --FSCQSLTKDSATLSFLKENGFDALFTDPAMCGVITLAKLPISYIFR-GFPCSLH 179
QY 181 SCGKLPAPISTYVPVMTGTLDRATLELVKNSMLSVLFHFMTQDYDHF-----WEEFYSK 236
DB 180 -IGQSPSPSVYVPRTFKSDHMTFPORLANFLNITL-----ENYVLCYSKYEILASD 233
QY 237 ALGRPTTLCETVGAKEIWLIRTYMDEFFPOPYOPNFEVFGSLHCAKALPREMEFVUS 296
DB 234 LKRVYSL-PALHONSMLRLRYDEVFEPYVPMNMFVIGTNCCKKGNLSOFEFAYVNA 292
QY 297 SGEDSIVVSLGSLFQONTVEERANITIASALQIPQVLMRYGKKRPSLTGANTRLYDWP 356
DB 293 SGHEGIVVFSIGSMVSEIPEKKAMELAELGRIPTQILMKRYIGTRPSNLAKKTILYKWL 352
QY 357 QNDLGHKRTAKFTTHGANGIYEAIYIGVAVPVVIGDQDLDNIAHMKAKGAVERN 416
DB 353 QNDLGHKRAKFTTHSGSHGIEIGICNGVPMVMPFLGDQDNKMRMETRGAGVTLNVL 412
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QY 417 TMSDDLRLARTVITTSYKENMRLSRHHDPVPLDRAVWIEFVMRHKKALRS 476
DB 413 EMTADLENAKTIYNKSKYENIMRLSLKDRPIELDLAVWVEYVMHKKAPHLRP 472
QY 477 AAHDLTWQHSIDVIGFLTCVATAIFFLTKCFLSQK-FNTRTRIEK 525
DB 473 AAHDLTWQHSIDVIGFLTAIVTVVFIYKSCAICGKCGKGRVK 522
```

```
RESULT 6
PCT-US92-00282-19
? Sequence 19, Application PC/TUS9200282
? GENERAL INFORMATION:
? APPLICANT: OWENS, IDA S.
? APPLICANT: RITTER, JOSEPH K.
? TITLE OF INVENTION: THE GENETIC LOCUS UGT1 AND A MUTATION
? TITLE OF INVENTION: THEREIN.
? NUMBER OF SEQUENCES: 40
? CORRESPONDENCE ADDRESS:
? ADDRESSEE: CUSHMAN DARBY & CUSHMAN
? STREET: 1615 L STREET, N.W.
? CITY: WASHINGTON
? STATE: D.C.
? COUNTRY: U.S.A.
? ZIP: 20036-5601
? COMPUTER READABLE FORM:
? MEDIUM TYPE: Floppy disk
? COMPUTER: IBM PC compatible
? OPERATING SYSTEM: PC-DOS/MS-DOS
? SOFTWARE: Patentin Release #1.0, Version #1.25
? CURRENT APPLICATION DATA:
? APPLICATION NUMBER: PCT/US92/00282
? FILING DATE: 19920110
? CLASSIFICATION: 435
? ATTORNEY/AGENT INFORMATION:
? NAME: SCOTT, WATSON T.
? REGISTRATION NUMBER: 26581
? REFERENCE/DOCKET NUMBER: 91532-PCT
? TELECOMMUNICATION INFORMATION:
? TELEPHONE: 202-861-3000
? TELEFAX: 202-822-0944
? TELEX: 6714627 CUSH
? INFORMATION FOR SEQ ID NO: 19:
? SEQUENCE CHARACTERISTICS:
? LENGTH: 288 amino acids
? TYPE: AMINO ACID
? STRANDEDNESS: single
? TOPOLOGY: linear
? MOLECULE TYPE: protein
? PCT-US92-00282-19
```

```
Query Match 13.7%; Score 383.5; DB 5; Length 288;
Best Local Similarity 34.1%; Pred. No. 3.1e-33;
Matches 92; Conservative 52; Mismatches 117; Indels 9; Gaps 5;

QY 15 LFCV---GCGFCGKXVLYVPCDMSHMLNVKYLEELIVRGHEVTVLTHSKPSLIDYKPSA 71
DB 16 LFCVIGPVVSHGKILLIIVDSGSHWLSMGLAQIQDQORHEIYVLA---PDASLYTRDGA 72
QY 72 L-KFEVYHMPDQTEENEIFVDLALNVLPGLSTWOSVYKLNDFVEIRGTLMKCESFY 130
DB 73 FYTLKTYVPFQOREVDEKESFVSLGHNVFENDSFLQVITYKKIKKDSAMLLSGSHLH 132
QY 131 NOTLMKKLOETNYDVALIDVPIPCGDLMAELLAVPVLRLRISVGNMRSCGKLPAPI 190
DB 133 NMLMASLAESEFVDWLDLPFCSPITVAQYISLPTVEFLH-ALPCSLEFATQCPNPS 191
QY 191 YVPVMTGTLDRMTLELVKNSMLSVLFHFMTQDYDHFMEEFYSKALGRPTTLCETVCK 250
DB 192 YVPRRLSSHDHMTFLQKRNKMLIAFSQNF-LCDVYVYSYATLASSEFLQREVTYDGLSS 250
QY 251 AEIWLIRTYMDEFFPOPYOPNFEVFGSLHC 280
```



```

; ADDRESSEE: CUSHMAN DABRY & CUSHMAN
; STREET: 1615 L STREET, N.W.
; CITY: WASHINGTON
; STATE: D.C.
; COUNTRY: U.S.A.
; ZIP: 20036-5601
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: PCT/US92/00282
; FILING DATE: 19920110
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: SCOTT, WATSON T.
; REGISTRATION NUMBER: 26581
; REFERENCE/DOCKET NUMBER: 91532-PCT
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 202-861-3000
; TELEFAX: 202-822-0944
; TELEX: 6714627 CUSH
; INFORMATION FOR SEQ ID NO: 9:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 286 amino acids
; TYPE: AMINO ACID
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; PCT-US92-00282-9

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```

Query Match 11.9%; Score 333.5; DB 5; Length 286;
Best Local Similarity 30.0%; Pred. No. 8.3e-28;
Matches 88; Conservative 53; Mismatches 119; Indels 33; Gaps 8;

QY 6 SALVELLTLQFCVCGFCGKVLVWPCDMSHMLNKKVILEELVGHETVLTLSKPSLID 65
DB 13 AGVFFLLMGWVG-----DKLLVYPQDSHSLMSKDIYEVLSDGHELVVYVPEVNLTK 68
QY 66 YRPSALKFEVVMPODTE-----ENEIFVDLNLVPLGLSTWQSVTKLDFVEEI 117
DB 69 ESKYTRK--LYPVYDQDEILKNRYQSGNNHFAERSFLTAPQTEYRNMMIVIGLYFIN- 125
QY 118 RGLTKMCESTIYNQTLMAKQET--NYDMLIDPIVPGDLMALLAVFVLTIRISVG 177
DB 126 -----CQSLQDRDLTLNFKESKFDL-LPDPLPCGVILAEYLGLPSVYLF-GEPCS 176
QY 178 MERSCGKLPAISVVPVMTGLTDRMTFLERKNSMLSV---LFHFIQDYDHFWEF 233
DB 177 LEHFTSRSPDVSTIPKCYTFKFSDMHTSQRVANFLVLLPEYLFYCLFSKY-----DEL 231
QY 234 YSKALGRPTLCETVGAKEIWLIRTYWDFEPPQYOPNFEFVGLHCKPARAL 286
DB 232 ASAVLKRDVDITITLYKQSVMLRLRYDFLEYRPRVPMVPMVFIIGNCKRRDL 284

```

```

RESULT 10
US-08-942-012B-29
; Sequence 29, Application US/08942012B
; Patent No. 6235278
; GENERAL INFORMATION:
; APPLICANT: MILLER, LOIS K.
; APPLICANT: LU, ALBERT
; APPLICANT: DIERKS, PETER
; APPLICANT: BLACK, BRUCE
; TITLE OF INVENTION: Biological Insect Control Agents Expressing
; TITLE OF INVENTION: Insect-Specific Toxin Genes, Methods and Compositions
; FILE REFERENCE: 28-96a
; CURRENT APPLICATION NUMBER: US/08/942.012B
; CURRENT FILING DATE: 1997-10-01
; PRIOR APPLICATION NUMBER: 08/729,606

```

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; PRIOR FILING DATE: 2000-10-01
; NUMBER OF SEQ ID NOS: 33
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 29
; LENGTH: 488
; TYPE: PRT
; ORGANISM: Lymantria dispar nucleopolyhedrovirus
; US-08-942-012B-29

```

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Query Match 11.7%; Score 329; DB 4; Length 488;
Best Local Similarity 25.4%; Pred. No. 6.2e-27;
Matches 126; Conservative 83; Mismatches 213; Indels 74; Gaps 19;

QY 13 LQFCVCGFCGK---VLWPC-DMSHMLNKKVILEELVGHETVLTLSKPSLIDY 66
DB 5 LIVCLCWSAARSANILAFPTPSYSHQVFRVYVLLAERGAIVYI---RLTVDF 61
QY 67 RPSALKFEVVMPODTEENEIFVDL--ALNVLPLSTWQ-----VTKLDFVEIRG 119
DB 62 -----NNAGNLTITIDLDGDLILMKASTHRRKRGIVADTVTADNYE 106
QY 120 TKMCESTIYNQTLMAKQET--NYDMLIDPIVPGDLMALLAVFVLTIRISVG- 175
DB 107 ALVWVDRQIHSEPPORHLKSARRGYDLVLEAFVYALLASHLFGDVPVY--QISSG 163
QY 176 -----GNMERSGCKLP-----APLSYVVPVMTGLTDRMTFLERKNSMLSVLFH 219
DB 164 ATAFNETMGATSRHPRYPLMRFNFGPLSV---WDGVELYTELR-----LQREFG 213
QY 220 FWIDYDHWEEFYSKALGRPTLCETVGAKEIWLIRTYWDFEPPQYOPNFEFVGLH 279
DB 214 LLADRDQALTKRRFGPRAPG---LRELRSRVLLFVNVSFVFNRRPVPSVQYLGHL 269
QY 280 C--KPAALKREMEFQSSGSDGVFVSUGS--LFQNTPEKANIITASAQIPQVLM 335
DB 270 LHDRAEPLSEAVARFLDES--RRGVVVSFSGSLATDMDMAALLDAFKMPYDVLW 328
QY 336 RYKGRKPS--TLGANTRLYDMIPQNDLGHPRKATFTHGNGNGIYEALHYHGVPMVPIF 394
DB 329 KHGRVGDITIPANVFQKFAQFQEVLLHKVKAFVYQAGQSDDEAVENLVPGVPLM 388
QY 395 GDQDLNIAHMKAKGAVEINFTKMTSEDLRLALRTVITSSYKENAMRLSRHHDPVKP 454
DB 389 GDQAFNMRHYELDIGALDNLTLADLRAVQVSDRAYRENRLRLRHQCAP 448
QY 455 LDRVFWIETFRHKG 470
DB 449 THKAVWYTEHALRDRG 464

```

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RESULT 11
US-08-942-012B-30
; Sequence 30, Application US/08942012B
; Patent No. 6235278
; GENERAL INFORMATION:
; APPLICANT: MILLER, LOIS K.
; APPLICANT: LU, ALBERT
; APPLICANT: DIERKS, PETER
; APPLICANT: BLACK, BRUCE
; TITLE OF INVENTION: Biological Insect Control Agents Expressing
; TITLE OF INVENTION: Insect-Specific Toxin Genes, Methods and Compositions
; FILE REFERENCE: 28-96a
; CURRENT APPLICATION NUMBER: US/08/942.012B
; CURRENT FILING DATE: 1997-10-01
; PRIOR APPLICATION NUMBER: 08/729,606
; NUMBER OF SEQ ID NOS: 33
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 30
; LENGTH: 488
; TYPE: PRT
; ORGANISM: Manesstra brassicae nuclear polyhedrosis virus

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US-08-942-012B-30

Query Match	11.7%;	Score 329;	DB 4;	Length 488;
Best Local Similarity	25.4%;	Pred. No. 6.2e-27;		
Matches 126;	Conservative 83;	Mismatches 213;	Indels 74;	Gaps 19;

QY	13	LQLEPCVCGFGCGK----	VLWPG-DMSHMLVAVKYLELLRYGHEVYUHLNHSR-SLIDY	66	
Db	5	LIVCLCICMSAARSNANILATYPTPSYSHQLVFRAKYVELLBERGAAVYI----	RLTYVDF	61	
QY	67	RKPSALFEEVHMPODRTENEIFVDI----	ALANVLPGLSTWQS----	VIKLNDFFVEIRG	119
Db	62	-----	NRNAGMLTITIDDDGILLMKASTTHRRKRGIVADPDTVAADNYE	106	
QY	120	TLKMMCESEFIYNOTLMKIOET--	NYDVMILDPYIPCGDMLAELLA--VPVLTIRISVG-	175	
Db	107	ALVNMWDQIHSEFPORILKSARGCYDILLVEAFVADYALLASHLEGVAVV----	QISSGH	163	
QY	176	-----	GNMERSCGKLP-----	APLSYVPEPMTGLDRMTFLERYKNSMLSVLFH	219
Db	164	ATAENFETMGATSIHRPRYRPLMFRNFGPLSV----	MDGVARELYETLR-----	LOREFG	213
QY	220	FWIDYDYHFMEEERYSKALGPTTLCETVYGAELTWLRTWDEFPORPYQDNFEEVCGH	279		
Db	214	LHADRODALLKRRRGPPEPG----	LRERLSYVRLLEFNVAHSVFENNRNPPRVSQVYLGGH	269	
QY	280	C--RPKALPKEMENFVQSSGEDIVVFSLDS--	LFONVTEEEKANIIJASALAQIPOKVLW	335	
Db	270	LHDRRAEPLSEAVARFLDES--	RGVVVYVVSFGSGLATEDMDADMAALLDAFKNMYPDYLM	328	
QY	336	RYKCKKKS--TIGAMTRFLDWYIIPQDILLGHPRTKAFETHGCGNGTGEALYIAGVPRVAGPIF	394		
Db	329	KHDSGVDSGLTIPRANFVQKMAPOAEVYLDHKNVKFAFVYQAGVQSTDEAVEMLVPLVAGVLM	388		
QY	395	GDQDLNTIAHMKAKAAAEINFKTYSIEDLLFALTYVTSSYKENNARLSRIHHQDPVKP	454		
Db	389	GDQAFNAHRYVELGIGVALDATRTLTADIAAAYBQVYSIDRAYRENLERLRLLRHQOASP	448		
QY	455	LDRAVFWTEFPYMRKKG	470		
Db	449	THKAWYTERHALRRDG	464		

RESULT 12
PCT-US92-00282-11
Sequence 11, Application PC/TUS9200282
GENERAL INFORMATION:
APPLICANT: OWENS, IDA S.
APPLICANT: RITTER, JOSEPH K.
TITLE OF INVENTION: THE GENETIC LOCUS UGT1 AND A MUTATION
TITLE OF INVENTION: THEREIN.
NUMBER OF SEQUENCES: 40
CORRESPONDENCE ADDRESSES:
ADDRESSEE: CUSHMAN DARBY & CUSHMAN
STREET: 1615 L STREET, N.W.
CITY: WASHINGTON
STATE: D.C.
COUNTRY: U.S.A.
ZIP: 20036-5601
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US92/00282
FILING DATE: 19920110
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: SCOTT, WATSON T.
REGISTRATION NUMBER: 26581
REFERENCE/DOCKET NUMBER: 91532-PCT

TELECOMMUNICATION INFORMATION:

```

1 TELEPHONE: 202-861-5000
2
3 TELEFAX: 202-882-0944
4
5 TEXT: 67114627 CUSH
6
7 INFORMATION FOR SEQ ID NO: 11:
8
9 SEQUENCE CHARACTERISTICS:
10
11 LENGTH: 289 amino acids
12
13 TYPE: AMINO ACID
14
15 STRANDEDNESS: single
16
17 TOPOLOGY: linear
18
19 MOLECULE TYPE: protein
20
21 PCT-US92-00282-11

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Query Match	11.6%;	Score 326;	DB 5;	Length 289;
Best Local Similarity	30.7%;	Pred. No. 5,5e-27;		
Matches	89;	Conservative 47;	Mismatches 122;	Indels 32;
			Gaps	6;

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Oy 11 LLLDLFGCGCGCKVLPWCDMSHHHNNVKKILELLVYRGEVYVLRHNSPSLIDYRPS 70
Db 16 LLLLLSYQNAESCKVLYVPIIDSGSHVLSMRALRDLHARGQVYVLLLEVNNYIKENNF 75
Oy 71 AKFEVVMPODRTEENFVDLALNVLPGLSQWSYIKLNDFFVEITGLTKMM----- 124
Db 76 TLTLYALISWTD-----FFDRLL-----LGHYSFEFTEHLLMKFSRMAIMNNSLI 123
Oy 125 -----CESIYVOTLMKKLOETNYVYMLIDPITPCGDMLAEVLAVPFLTLRISVGMMR 180
Db 124 IHRSCVELLHNEHDLRIHHAHSEFVLYLTDPRHLCAVIAKLSTIPAVFLR-NIPCDJF 182
Oy 181 SCGLPAPLSTVPPVPMGLDRMTFLERVKNKM-----LSVLEHFIODYDYHHEEYFSK 236
Db 183 KGTQCPNPSSTYIPRLITNSDHMFELRVKKNMLPLALSTYICHAVSAPY-----ASLSE 237
Oy 237 ALGRITTCETVYKAEIYLIITYVNDPEEPPOYQNPFEFYGJHCKPAKAL 266
Db 238 LFRQVSYVVDLYSHASVWLEFGDVFMDIPRIIMNNVIFIGGINANGKPL 287

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RESULT 13
 PCT-US92-00282-15
 Sequence 15 Application PC/TUS9200282
 GENERAL INFORMATION:
 APPLICANT: OWENS, IDA S.
 APPLICANT: RITTER, JOSEPH K.
 TITLE OF INVENTION: THE GENETIC LOCUS UGT1 AND A MUTATION
 TITLE OF INVENTION: THEREIN.
 NUMBER OF SEQUENCES: 40
 CORRESPONDENCE ADDRESS:
 ADDRESSEE: CUSHMAN DABRY & CUSHMAN
 STREET: 1615 L STREET, N.W.
 CITY: WASHINGTON
 STATE: D.C.
 COUNTRY: U.S.A.
 ZIP: 20036-5601
 COMPUTER READABLE FORM:
 MEDIUM TYPE: Floppy disk
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: PatentIn Release #1.0, Version #1.25
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: PCT/US92/00282
 FILING DATE: 19920110
 CLASSIFICATION: 435
 ATTORNEY/AGENT INFORMATION:
 NAME: SCOTT, WATSON T.
 REGISTRATION NUMBER: 26561
 REFERENCE/DOCKET NUMBER: 91532-PCT
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: 202-861-3000
 TELEFAX: 202-822-0944
 TELEX: 6714627 CUSH
 INFORMATION FOR SEQ ID NO: 15:

SEQUENCE CHARACTERISTICS:
LENGTH: 289 amino acids
TYPE: AMINO ACID
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
PCT-US92-00282-15

Query Match 11.6%; Score 326; DB 5; Length 289;
Best Local Similarity 29.6%; Pred. No. 5.5e-27;
Matches 86; Conservative 53; Mismatches 118; Indels 34; Gaps 6;

QY 11 LLLQLFCVCGCGKVLVPCDMSHMLNVKYLLELLIVRGHEVTLTSSKPSLIDYRKPS 70
DB 16 LLLLSVQPMASGKVLVPTDGSFVLSMRVRLRHARGQAVLVLEVMNHKEENF 75
QY 71 ALRFEVYMPDRTE-----ENEIVDLALNVLPGLSTWQSVYKLNDFVEIRG 119
DB 76 TLTITVAISWIDEDFRVHLGHTQLYFTEHFLK-----KFRSMAMINNSL---- 122
QY 120 TLKMCSEFIYNOTLMKLOETNYDVMLIDVIPCGLMAELLAVPVLTLRISVGME 179
DB 123 VYHSCVELLHNEALIHNLATSPDVLTDPVNLCAVLAKYLSIPYFFELK-NIPCDLD 181
QY 180 RSCGKLAPLSYVVPMTGLDRMTFLERKNSM-----LSVLFHFMTODYDHFMEEFYS 235
DB 182 FKGTQCPNPSSYIPRLTITNSDHTFMQRYKNNMLYPLALSYICHAFSAPY-----ASLAS 236
QY 236 KALGRPTTLCETVGAKELIIRTYMDFEFPQOPNFEFVGLHCKRAKAL 286
DB 237 ELFGREYSVVDILSHASVWLFPRGDFVMDYPRPIPMNVFVIGINCANKRP 287

RESULT 14

PCT-US92-00282-13
Sequence 13, Application PC/TUS9200282
GENERAL INFORMATION:
APPLICANT: OMENS, IDA S.
TITLE OF INVENTION: THE GENETIC LOCUS UGT1 AND A MUTATION
TITLE OF INVENTION: THEREIN.
NUMBER OF SEQUENCES: 40
CORRESPONDENCE ADDRESS:
ADDRESSEE: CUSHMAN DARBY & CUSHMAN
STREET: 1615 L STREET, N.W.
CITY: WASHINGTON
STATE: D.C.
COUNTRY: U.S.A.
ZIP: 20036-5601
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US92/00282
FILING DATE: 19920110
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: SCOTT, WATSON T.
REGISTRATION NUMBER: 26581
REFERENCE/DOCKET NUMBER: 91532-PCT
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-861-3000
TELEFAX: 202-822-0944
TELEX: 6714627 CUSH
INFORMATION FOR SEQ ID NO: 13:
SEQUENCE CHARACTERISTICS:
LENGTH: 289 amino acids
TYPE: AMINO ACID
STRANDEDNESS: single
TOPOLOGY: linear

MOLECULE TYPE: protein
PCT-US92-00282-13

Query Match 11.5%; Score 321; DB 5; Length 289;
Best Local Similarity 29.5%; Pred. No. 1.9e-26;
Matches 89; Conservative 48; Mismatches 109; Indels 56; Gaps 7;

QY 11 LLLQLFCVCGCGKVLVPCDMSHMLNVKYLLELLIVRGHEVTLT-----HSKP----- 61
DB 16 LLLLSVQPMASGKVLVPTDGSFVLSMRVRLRHARGQAVLVLEVMNHKEENF 75
QY 62 SLIDYRKPSALK-----FEVYHMPDRTEENEIVDLALNVLPGLSTWQSVI 108
DB 76 TLTNAVWTKQEDRVTLGTYGFFETHLKRYSMAIMNNVSL----- 122
QY 109 KLNDFVEIRGTLKMCSEFIYNOTLMKLOETNYDVMLIDVIPCGLMAELLAVPVL 168
DB 123 -----ALHRCCELLHNEALIHNLATSPDVLTDPVNLCAVLAKYLSIPAVF 171
QY 169 TLRISVGNMERSGKLPAPLSYVVPMTGLDRMTFLERKNSM-----LSVLFHFMTOD 224
DB 172 FWRY-IPDLDIFKGTQCPNPSSYIPKLTITNSDHTFMQRYKNNMLYPLALSYICHTSPAP 230
QY 225 YDYHFMEEFYSKALGRPTTLCETVGAKELIIRTYMDFEFPQOPNFEFVGLHCKRAK 284
DB 231 Y-----ASLASLFGREYSVVDLVSVWLFPRGDFVMDYPRPIPMNVFVIGINCANGK 285
QY 285 AL 286
DB 286 PL 287

RESULT 15

PCT-US92-00282-26
Sequence 26, Application PC/TUS9200282
GENERAL INFORMATION:
APPLICANT: OMENS, IDA S.
TITLE OF INVENTION: THE GENETIC LOCUS UGT1 AND A MUTATION
TITLE OF INVENTION: THEREIN.
NUMBER OF SEQUENCES: 40
CORRESPONDENCE ADDRESS:
ADDRESSEE: CUSHMAN DARBY & CUSHMAN
STREET: 1615 L STREET, N.W.
CITY: WASHINGTON
STATE: D.C.
COUNTRY: U.S.A.
ZIP: 20036-5601
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US92/00282
FILING DATE: 19920110
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: SCOTT, WATSON T.
REGISTRATION NUMBER: 26581
REFERENCE/DOCKET NUMBER: 91532-PCT
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-861-3000
TELEFAX: 202-822-0944
TELEX: 6714627 CUSH
INFORMATION FOR SEQ ID NO: 26:
SEQUENCE CHARACTERISTICS:
LENGTH: 98 amino acids
TYPE: AMINO ACID
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein

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